Amendments to the Claims

Claims 1-5 **(Canceled)**

Claim 6 **(Currently Amended)** An information recording apparatus for encoding video information and audio information to a system stream and recording the system stream to a recording medium,

the system stream being allowed to have a first format (TS) and a second format (PS),

the information recording apparatus comprising:

a first encoding section operable to encode video information and audio information in a predetermined encoding manner according to the first format (TS) to generate a video elementary stream and an audio elementary stream;

a second encoding section operable to perform system-encoding by multiplexing the video elementary stream and the audio elementary stream to generate the system stream according to the first format (TS); and

a control section operable to control the first encoding section and the second encoding section, wherein

the first format (TS) is allowed to have a constrained format used for converting the system stream from the first format (TS) to the second format (PS),

the control section controls the first and second encoding sections so that each encoding is done according to the constrained format,

the first format (TS) has a structure for storing data segmented in first packets, the second format (PS) has a structure for storing data segmented in packs, and the pack is larger than the first packet in size,

the first packet stores segmented data of a second packet,

the second packet stores video information or audio ~~information and includes~~ information, the second packet storing the audio information including at least one audio frame, and

according to the constrained format,

a predetermined number of first packets including either the video information or the audio information are grouped and managed as a multiplexing unit, and a total payload data

2

size of first packets managed in the multiplexing unit is smaller than a payload data size of the pack,

the multiplexing unit is a processing unit to convert the first format (TS) to the second format (PS), and

a first one of complete audio frames in the multiplexing unit including only the audio information is a first one of audio frames in a payload of the second packet.

Claims 7-10 **(Canceled)**

Claim 11 **(Currently Amended)** An information recording method including encoding video information and audio information to a system stream and recording the system stream to a recording medium,

the system stream being allowed to have a first format (TS) and a second format (PS),

the first format (TS) is allowed to have a constrained format used for converting the system stream from the first format (TS) to the second format (PS),

the first format (TS) has a structure for storing data segmented in first packets, the second format (PS) has a structure for storing data segmented in packs, and the pack is larger than the first packet in size, and

the first packet stores segmented data of a second packet, and the second packet stores video information or audio information and includes information, the second packet storing the audio information including at least one audio frame,

the information recording method comprising:

encoding video information and audio information in a predetermined encoding method according to the constrained format (TS) to generate a video elementary stream and an audio elementary stream;

performing system-encoding by multiplexing the video elementary stream and the audio elementary stream according to the constrained format (TS) to generate the system stream; and

grouping and managing a predetermined number of first packets including either the video information or the audio information as a multiplexing unit, wherein

3

a total <u>payload</u> data size of first packets managed in the multiplexing unit is smaller than a<u>payload</u> data size of the pack, <u>the multiplexing unit being a processing unit to convert the first format (TS) to the second format (PS),</u> and

a first one of complete audio frames in the multiplexing unit <u>including only the audio information</u> is a first one of audio frames in a payload of the second packet.

Claims 12-15 **(Canceled)**